IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 41-56 and 75-92 without prejudice or disclaimer and AMEND claims 1, 19, 36-40, and 57 in accordance with the following:

Claim 1 (Currently Amended): An information storage medium in which data is recorded in recording units, each of the recording units comprising:

a body including user data and a first recognizer; and

a head which is arranged in front of the body ~~to protect the body~~ and includes a second recognizer ~~to protect~~ other than the first recognizer,

wherein a number of maximum length patterns used to form the second recognizer ~~comprises more patterns~~ is greater than a number of maximum length patterns used to form the first recognizer so that the second recognizer is distinguished from the first recognizer.

Claim 2 (Original): The information storage medium of claim 1, wherein the recording unit further comprises a tail which is arranged behind the body and includes a third recognizer.

Claim 3 (Original): The information storage medium of claim 1, wherein when a run length limited (1, 10) modulation code is used, the first recognizer uses a 12T pattern, and the second recognizer uses two 12T patterns.

Claim 4 (Original): The information storage medium of claim 1, wherein when a run length limited (1, 10) modulation code which modulates 8-bit data into a 12-bit codeword is used, the first recognizer uses a 13T pattern, and the second recognizer uses two 13T patterns.

Claim 5 (Original): The information storage medium of claim 1,

wherein the second recognizer is located in a rear part of the head.

Claim 6 (Original): The information storage medium of claim 1, wherein a mark or a pit with a specific length is repeatedly recorded for a length of A number of bytes in the head for a data phase locked loop.

Claim 7 (Withdrawn): The information storage medium of claim 6, wherein a pattern '010001000100' is used so that the mark or pit with the specific length is repeated.

Claim 8 (Withdrawn): The information storage medium of claim 6, wherein the length of the A byte is 68.

Claim 9 (Withdrawn): The information storage medium of claim 6, wherein a pattern not detectable from any other patterns is used for a length of B number of bytes as a recognition pattern for the second recognizer, which identifies the head.

Claim 10 (Withdrawn): The information storage medium of claim 6, wherein a pattern not detectable from any other patterns is used for a length of B number of bytes as a recognition pattern for the second recognizer, which identifies the head, and the recognition pattern is connected to a pattern in front of the recognition pattern.

Claim 11 (Withdrawn): The information storage medium of claim 9, wherein a pattern '000000000010000000000001' is used to form the second recognizer.

Claim 12 (Withdrawn): The information storage medium of claim 10, wherein a pattern '000000000010000000000001' is used to form the second recognizer.

Claim 13 (Withdrawn): The information storage medium of claim 9, wherein the length of the B bytes is 2.

Claim 14 (Withdrawn): The information storage medium of claim 10,

wherein the length of the B bytes is 2.

Claim 15 (Withdrawn): The information storage medium of claim 9, wherein a phase locked loop pattern subsequent to the pattern for the second recognizer is a repetition of a mark or pit with a specific length during a residual C number of bytes of the head.

Claim 16 (Withdrawn): The information storage medium of claim 10, wherein a phase locked loop pattern subsequent to the pattern for the second recognizer is a repetition of a mark or a pit with a specific length during a residual C number of bytes of the head.

Claim 17 (Withdrawn): The information storage medium of claim 15, wherein a pattern '000100010001' is used for the repetition of the mark or the pit with the specific length.

Claim 18 (Withdrawn): The information storage medium of claim 15, wherein the length of the C bytes is 1.

Claim 19 (Currently Amended): An information storage medium in which data is recorded in recording units, each of the recording units comprising:

a body including user data, an error correction parity, and an error correction code (ECC) sync; and

a head which is disposed in front of the body ~~to protect the body~~,

wherein the head includes a head identifying pattern which is unique such that the head identifying pattern cannot be detected from any other patterns in the body.

Claim 20 (Original): The information storage medium of claim 19, wherein the head identifying pattern is disposed in a rear part of the head and comprises a head closing mark, which marks a closing of the head.

Claim 21 (Original): The information storage medium of claim 20, wherein the head closing mark comprises more patterns than a number of maximum length

patterns used to form the ECC sync so that the head closing mark is distinguished from the ECC sync.

Claim 22 (Original): The information storage medium of claim 20, wherein each of the recording units further comprises a tail which is disposed behind the body and includes a tail opening mark, which marks a closing of the tail.

Claim 23 (Original): The information storage medium of claim 19, wherein a mark or a pit with a specific length is repeatedly recorded for a length of A number of bytes in the head for a data phase locked loop.

Claim 24 (Withdrawn): The information storage medium of claim 23, wherein a pattern '010001000100' is used so that the mark or pit with the specific length is repeated.

Claim 25 (Withdrawn): The information storage medium of claim 23, wherein the length of the A bytes is 68.

Claim 26 (Withdrawn): The information storage medium of claim 23, wherein a pattern not detectable from any other patterns is used for a length of B number of bytes as the head identifying pattern.

Claim 27 (Withdrawn): The information storage medium of claim 23, wherein a pattern not detectable from any other patterns is used for a length of B number of bytes as a recognition pattern for the second recognizer, which identifies the head, and the recognition pattern is connected to a pattern in front of the recognition pattern.

Claim 28 (Withdrawn): The information storage medium of claim 26, wherein a pattern '000000000010 000000000001' is used to form the head identifying pattern.

Claim 29 (Withdrawn): The information storage medium of claim 27, wherein a pattern '000000000010 000000000001' is used to form the head identifying pattern.

Claim 30 (Withdrawn): The information storage medium of claim 26, wherein the length of the B bytes is 2.

Claim 31 (Withdrawn): The information storage medium of claim 27, wherein the length of the B bytes is 2.

Claim 32 (Withdrawn): The information storage medium of claim 26, wherein the mark or the pit with the specific length is repeated for a length of C number of bytes so that the head identifying pattern and a pattern connected to the head identifying pattern provide a data phase locked loop.

Claim 33 (Withdrawn): The information storage medium of claim 27, wherein the mark or the pit with a specific length is repeated for a length of C number of bytes so that the head identifying pattern and a pattern connected to the head identifying pattern provide a data phase locked loop.

Claim 34 (Withdrawn): The information storage medium of claim 32, wherein a pattern '000100010001' is used for a repetition of the mark or the pit with the specific length.

Claim 35 (Withdrawn): The information storage medium of claim 32, wherein the length of the C bytes is 1.

Claim 36 (Currently Amended): An apparatus for reproducing data recorded on a disk in recording units, each of the recording units comprising: a body including user data and a first recognizer; and a head which is disposed in front of the body ~~to protect the body~~ and includes a second recognizer ~~to protect~~ other than the first recognizer, wherein a number of maximum length patterns used to form the second recognizer ~~comprises more patterns~~ is greater than a number of maximum length patterns used to form the first recognizer so that the second recognizer is distinguished from the first recognizer, the apparatus comprising:

a pickup which detects a radio frequency signal from the disk; and

~~a binary decoder which receives the radio frequency signal from the pickup and, if the second recognizer is detected and the first recognizer is detected from a data area predetermined in the second recognizer, determines from the first recognizer that the body starts and obtains binary data from the radio frequency signal~~

a controller which controls the pickup and distinguishes the body from the head based on the first recognizer and the second recognizer.

Claim 37 (Currently Amended): The apparatus of claim 36, wherein ~~if the second recognizer is detected but the first recognizer is not detected from a data area ranging from the second recognizer to a predetermined point, the binary decoder inserts the first recognizer into a location, which is a predetermined distance apart from the second recognizer, and determines from the inserted first recognizer that the body starts~~ the recording unit further comprises a tail which is arranged behind the body and includes a third recognizer.

Claim 38 (Currently Amended): The apparatus of claim 36, wherein ~~the recording unit further comprises a tail which is disposed behind the body and includes a third recognizer, and if the second recognizer is not detected and the first recognizer is detected from a data area ranging from a judged location of the third recognizer to a predetermined point, the binary decoder determines from the first recognizer that the body starts~~ when a run length limited (1, 10) modulation code is used, the first recognizer uses a 12T pattern, and the second recognizer uses two 12T patterns.

Claim 39 (Currently Amended): The apparatus of claim 36, wherein ~~the recording unit further comprises a tail which is disposed behind the body and includes a third recognizer, and if the second recognizer is not detected and the first recognizer is not detected from a data area ranging from a judged location of the third recognizer to a predetermined point, the binary decoder re-searches for the second recognizer~~ when a run length limited (1, 10) modulation code which modulates 8-bit data into a 12-bit codeword is used, the first recognizer uses a 13T pattern, and the second recognizer uses two 13T patterns.

Claim 40 (Currently Amended): The apparatus of claim 36, wherein ~~the recording unit further comprises a tail which is disposed behind the body and includes a third recognizer,~~

~~and if the second recognizer is not detected and the first recognizer is not detected from a data area ranging from a judged location of the third recognizer to a predetermined point, the binary decoder obtains a first recognizer using a first recognizer protection routine and re-searches for the second recognizer~~ the second recognizer is located in a rear part of the head.

Claims 41-56 (Canceled)

Claim 57 (Currently Amended): A method of recording data on a recordable information storage medium, the method comprising:

recording data in recording units,

wherein each of the recording units comprises: a body including user data and a first recognizer; and a head which is disposed in front of the body ~~to protect the body~~ and includes a second recognizer ~~to protect~~ other than the first recognizer, wherein a number of maximum length patterns used to form the second recognizer ~~comprises more patterns~~ is greater than a number of maximum length patterns used to form the first recognizer so that the second recognizer is distinguishable from the first recognizer.

Claim 58 (Original): The method of claim 57, wherein each of the recording units further comprises a tail which is disposed behind the body and includes a third recognizer.

Claim 59 (Original): The method of claim 57, wherein when a run length limited (1, 10) modulation code is used, the first recognizer uses a 12T pattern, and the second recognizer uses two 12T patterns.

Claim 60 (Original): The method of claim 57, wherein when a run length limited (1, 10) modulation code which modulates 8-bit data into a 12-bit codeword is used, the first recognizer uses a 13T pattern, and the second recognizer uses two 13T patterns.

Claim 61 (Original): The method of claim 57, wherein the second recognizer is located in a rear part of the head.

Claim 62 (Original): The method of claim 57, wherein a mark or a pit with a specific length is repeatedly recorded for a length of A number of bytes in the head for a data phase locked loop.

Claim 63 (Withdrawn): The method of claim 62, wherein a pattern '010001000100' is used so that the mark or the pit with the specific length is repeated.

Claim 64 (Withdrawn): The method of claim 62, wherein the length of the A bytes is 68.

Claim 65 (Withdrawn): The method of claim 62, wherein a pattern not detectable from any other patterns is used for a length of B number of bytes as a recognition pattern for the second recognizer, which identifies the head.

Claim 66 (Withdrawn): The method of claim 62, wherein a pattern not detectable from any other patterns is used for a length of B number of bytes as a recognition pattern for the second recognizer, which identifies the head, and the recognition pattern is connected to a pattern in front of the recognition pattern.

Claim 67 (Withdrawn): The method of claim 65, wherein a pattern '00000000001000000000001' is used to form the second recognizer.

Claim 68 (Withdrawn): The method of claim 66, wherein a pattern '00000000001000000000001' is used to form the second recognizer.

Claim 69 (Withdrawn): The method of claim 65, wherein the length of the B bytes is 2.

Claim 70 (Withdrawn): The method of claim 66, wherein the length of the B bytes is 2.

Claim 71 (Withdrawn): The method of claim 65, wherein a phase locked

loop pattern subsequent to the pattern for the second recognizer is a repetition of a mark or pit with a specific length during a residual C number of bytes of the head.

Claim 72 (Withdrawn): The method of claim 66, wherein a phase locked loop pattern subsequent to the pattern for the second recognizer is a repetition of a mark or pit with a specific length during a residual C number of bytes of the head.

Claim 73 (Withdrawn): The method of claim 71, wherein a pattern '000100010001' is used for a repetition of the mark or the pit with the specific length.

Claim 74 (Withdrawn): The method of claim 71, wherein the length of the C bytes is 1.

Claim 75 (Original): The method of claim 57, wherein the user data is recorded in units of ECC blocks, the first recognizer is an ECC sync, the second recognizer is a head closing mark, which marks an end of the head, and the third recognizer is a tail opening mark, which marks a start of the tail.

Claims 76-92 (Canceled)